

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

In the specification, paragraphs have been amended on pages 16, 19, 22, 23, 31 and 38.

Claims 4-5 are requested to be cancelled without prejudice or disclaimer. Claims 1-3 are currently being amended. Claims 1 and 3 have been amended to include the features of original dependent claims 4 and 5, respectively. No new matter has been added.

This amendment changes and deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-3 and 6-11 are now pending in this application.

Drawings

The drawings were objected to because reference character S25 was not mentioned in the description. The specification has been amended in paragraph [0124] to mention reference character S25, thus overcoming the objection to the drawings.

Specification

The disclosure was objected to for informalities. The specification has been amended to correct the informalities, thus overcoming the objection.

Rejections under 35 U.S.C. §§ 102 and 103

Claims 1-3 and 6 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,087,987 to Bachhuber et al. (hereafter "Bachhuber"). Claims 4-5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bachhuber in view of U.S. Patent No. 6,218,932 to Stippler (hereafter "Stippler"). Claims 7-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bachhuber in view of U.S. Patent No. 4,733,215 to

Memmola (hereafter “Memmola”). Claims 10-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bachhuber in view of U.S. Patent No. 6,211,776 to Röhrle (hereafter “Röhrle”). Applicant respectfully traverses these rejections for at least the following reasons.

Claim 1 is directed to a radio system that includes structure for determining the position of a portable device of the system. In this respect, claim 1 recites “stationary device sends the first signals from a plurality of stationary-device side antennae located at different positions respectively, and when said stationary device receives the second signals from said portable device through the respective stationary-device side antennae, said stationary device determines a position of said portable device by using the reception intensity data of the first signals included in the respective second signal.” Further, claim 1, as amended, recites that the “stationary device receives the first signals by varying the setting of the magnitude relations between the reception intensity data of the first signals from the stationary-device side antennae, and determines the position of said portable device by using the reception intensity data obtained for each setting.” The references cited in the rejection fail to suggest at least this feature of claim 1 in the context of that claim.

The Office Action on page 6 appears to acknowledge that Bachhuber does not disclose this feature stating with respect to original claim 4 (the features of which have been incorporated into amended claim 1): “Bachhuber et al. does not expressly disclose the adjustment of the stationary device’s antennae output powers and the taking of measurements for each adjustment.” The Office Action then supplies Stippler for allegedly disclosing this feature. Applicants submit, however, that Stippler fails to cure the deficiencies of Bachhuber.

Stippler discloses a system including a transceiver unit 2 and a number of antennas 3 in a motor vehicle, and a portable code transmitter or transponder 5 (col. 3, lines 10-27). When a trigger 4, 12 is activated, a challenge signal is transmitted via the antennas 3 to the transponder 5, which then transmits back a response signal (col. 3, lines 22-27). When a first challenge A having a reception power X is sent, the transponder 5 responds with a response A adding the value of the reception power X to its response (col. 5, lines 1-9). A second challenge B with reception power Y is then sent, and the transponder 5 responds with a response B adding the value of the reception power Y to its response (col. 5, lines 10-17). The first and second responses are evaluated to obtain the X and Y power values, and only if

the compared reception power values are significantly different is unlocking authorized (col. 5, lines 18-27).

Stippler, however, does not vary the X and Y powers to determine the position of the transponder 5. In fact, in the Stippler system it is presumed that the position of the transponder 5 does not change significantly between the first and second challenges (See col. 5, lines 20-24). The purpose of changing the X power to the Y power in Stippler is so that an authorized responder 5 will provide different measured power values in its responses A and B, so that these values can be extracted and compared to authorize unlocking. Stippler does not calculate the position of the responder 5 using the X and Y power values, but merely presumes the position remains approximately constant, whatever that position might be.

Because Stippler does not vary the X and Y powers to determine the position of the transponder 5, Stippler would not suggest to one skilled in the art modifying the Bachhuber system to vary the output powers of its antennas in the manner recited in claim 1. The Office Action states on page 6 with respect to the modification of Bacchuber in light of Stippler: “One of ordinary skill in the art would have been motivated to make this modification because of the enhanced accuracy of determining position based on several transmitting powers since effects such as receiver saturation, near field coupling, and reflections can cause perturbations in position determination measurements.” Applicants submit, however, that nowhere does Stippler suggest that varying the X and Y powers increases the accuracy in measuring the position of its transponders. Instead, this motivational statement appears to have been derived based on applicants’ own disclosure, which is improper.

Memmola and Röhrle were cited for allegedly disclosing features of dependent claims, but fail to cure the deficiencies of Bacchuber and Stippler.

Independent claim 2, as amended, recites “wherein said stationary device varies the setting of the amplitude relations between transmission output powers of the first signals from said respective stationary-device side antennae and sends the first signals, and said portable device determines the position of said portable device by using the reception intensity data obtained for each said setting.” Thus, claim 2 is patentable for reasons analogous to claim 1.

Independent claim 3, as amended, recites “wherein said stationary device receives the first signals by varying the setting of the magnitude relations between the reception intensity

data of the first signals from the stationary-device side antennae, and determines the position of said portable device by using the reception intensity data obtained for each setting." Thus, claim 3 is patentable for reasons analogous to claim 1.

The dependent claims are patentable for at least the same reasons as their respective independent claims, as well as for further patentable features recited therein.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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